

Comparisons of Job Characteristics

Focus Occupation: Environmental Science and Protection Technicians, Including Health (19-4091)

Associated Occupation: Geoscientists, Except Hydrologists and Geographers (19-2042)

Compare Knowledge

Compare Skills

Compare Abilities

Compare Detailed Work Activities

Compare Tools and Technologies

<<	Focus occupation element is much lower
<	Focus occupation element is lower
0	Focus occupation element is at a similar level
>	Focus occupation element is at a higher level
>>	Focus occupation element is at a much higher level

Knowledge

Similarity of Focus Occupation to Associated Occupation: 72

Focus Occupation: Environmental Science and Protection Technicians, Including Health (19-4091)

Associated Occupation: Geoscientists, Except Hydrologists and Geographers (19-2042)

Associated Occupation's Key Knowledge Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation	
Engineering and Technology	5.7	17.8	9.7	<<	Extensive education and/or training may be required
Geography	3.9	17.4	9.7	<<	Extensive education and/or training may be required
Mathematics	9.2	16.0	12.3	<<	Extensive education and/or training may be required
Computers and Electronics	8.4	15.0	13.6	<	Expanded education and/or training may be required
Physics	4.3	14.4	9.9	<<	Extensive education and/or training may be required
Chemistry	4.8	10.3	13.2	>>	Current knowledge level is likely more than sufficient

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Skills

Similarity of Focus Occupation to Associated Occupation: 88

Focus Occupation: Environmental Science and Protection Technicians, Including Health (19-4091)

Associated Occupation: Geoscientists, Except Hydrologists and Geographers (19-2042)

Associated Occupation's Key Skills Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation	
Reading Comprehension	10.7	16.0	12.8	<<	Extensive development of skills in this area may be required
Science	4.5	15.1	10.3	<<	Extensive development of skills in this area may be required
Active Listening	11.0	13.6	11.8	<	A higher skill level may be required
Complex Problem Solving	9.1	11.9	9.6	<	A higher skill level may be required

Mathematics	6.2	9.4	9.2	0	Current skill level may be sufficient
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The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Abilities		Similarity of Focus Occupation to Associated Occupation: 93			
Focus Occupation: Environmental Science and Protection Technicians, Including Health (19-4091) Associated Occupation: Geoscientists, Except Hydrologists and Geographers (19-2042)					
Associated Occupation's Key Abilities Elements	Average Rating, All Occupations	Associated Occupation's Rating	Focus Occupation's Rating	Evaluation of Focus Occupation	
Written Comprehension	11.0	16.0	13.9	<	Some improvement in abilities may be required
Written Expression	9.8	14.2	12.9	<	Some improvement in abilities may be required
Inductive Reasoning	10.2	13.2	11.4	<	Some improvement in abilities may be required
Deductive Reasoning	10.6	13.0	11.8	<	Some improvement in abilities may be required
Near Vision	11.1	12.8	12.8	0	Current ability level may be sufficient
Category Flexibility	9.0	12.3	9.5	<<	Extensive improvement in abilities may be required
Mathematical Reasoning	6.3	10.3	9.1	<	Some improvement in abilities may be required
Flexibility of Closure	7.8	10.1	9.3	0	Current ability level may be sufficient
Number Facility	6.3	9.1	9.0	0	Current ability level may be sufficient

The maximum possible rating is 25.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Activities that Both Occupations Have in Common		Similarity of Focus Occupation to Associated Occupation: 83
Focus Occupation: Environmental Science and Protection Technicians, Including Health (19-4091) Associated Occupation: Geoscientists, Except Hydrologists and Geographers (19-2042)		
Work Activities	Exclusivity of Activity	
Adhere to safety procedures	12	
Advise clients or customers	19	
Advise governmental or industrial personnel	28	
Analyze chemical experimental, test, or analysis data or findings	69	
Analyze ecosystem data	69	
Analyze scientific research data or investigative findings	27	
Collect geographic or physical data	81	
Collect scientific or technical data	30	
Collect statistical data	47	
Communicate technical information	4	
Conduct field research or investigative studies	52	

Conduct laboratory research or experiments	57
Conduct standardized qualitative laboratory analyses	62
Conduct standardized quantitative laboratory analyses	62
Confer with scientists	54
Develop or maintain databases	30
Develop plans for programs or projects	31
Develop policies, procedures, methods, or standards	21
Develop tables depicting data	33
Direct and coordinate activities of workers or staff	3
Direct implementation of new procedures, policies, or programs	60
Draw maps or charts	69
Explain complex mathematical information	30
Make decisions	24
Prepare environmental impact or related environmental reports	81
Prepare reports	8
Prepare technical reports or related documentation	22
Record test results, test procedures, or inspection data	48
Test materials or solutions	73
Use chemical testing or analysis procedures	54
Use computers to enter, access or retrieve data	3
Use knowledge of investigation techniques	16
Use knowledge of materials testing procedures	70
Use laboratory equipment	60
Use mathematical or statistical methods to identify or analyze problems	30
Use physical science research techniques	68
Use precision measuring tools or equipment	17
Use quantitative research methods	35
Use relational database software	26
Use scientific research methodology	21
Use spreadsheet software	18
Use word processing or desktop publishing software	17

Not all positions in these occupations will necessarily perform all of the listed activities. The exclusivity rating is an indication of how unique the activity is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations engage in that activity.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.

Tools and Technologies that Both Occupations Have in Common

Similarity of Focus
Occupation to Associated
Occupation: 77

Focus Occupation: Environmental Science and Protection Technicians, Including Health (19-4091)
Associated Occupation: Geoscientists, Except Hydrologists and Geographers (19-2042)

Tools and Technologies	Exclusivity
Business function specific software	1
Cameras	2
Computer data input devices	2
Computer printers	2
Computers	1

Content authoring and editing software	1
Content management software	6
Data management and query software	1
Electrochemical measuring instruments and accessories	9
Gas analyzers and monitors	10
Hydrological instruments	31
Industry specific software	1
Information exchange software	1
Laboratory centrifuges and accessories	13
Laboratory microscope slides and supplies	20
Light and wave generating and measuring equipment	4
Liquid and solid and elemental analyzers	19
Network applications software	1
Sampling equipment	12
Soil measuring equipment	20
Sound generating and measuring equipment	19
Spectroscopic equipment	10
Viewing and observing instruments and accessories	4

Not all positions in these occupations will necessarily use all of the listed tools and technologies. The exclusivity rating is an indication of how unique the tool or technology is amongst all occupations. The maximum rating is 100. High scores indicate that only a small number of occupations use that tool or technology.

Source: Alaska Department of Labor and Workforce Development, Research and Analysis Section analysis of O*NET (Occupation Information Network) data.